

Preschoolers' comprehension of information structure: Evidence from the effect of sentence focus on logical scope

A large part of the existing empirical research suggests that children's acquisition of information structure (IS) in sentence comprehension is a particularly prolonged process, pointing to non-adult-like performance at preschool ages, especially in sentence comprehension [1]. Most previous experimental studies targeting preschoolers' comprehension of prosodically marked focus collected responses that required children to correctly identify the set of focus-alternatives licensed by focus-marking. Pursuing a different strategy, we investigate the comprehension of the information structural role of sentence-level focus at preschool ages by capitalizing on a general and systematic effect focus has on logical scope. Specifically, focus on negation is known to lend it wide scope over (non-topic) scope-bearing arguments in adults' sentence interpretation [2]. While it has been recently demonstrated that prosody can influence children's comprehension of logical scope [3], arguably, the present study is the first one to explore the effect of *sentence-level focus* on their scope interpretation.

The experiment, conducted with Hungarian preschoolers (n=38; 4;1-6;10) and adult controls (n=38), employed an innovative adaptation of Goro & Akiba's Truth Value Judgment task [4], [5]. Critical sentences (of the form "The lamb doesn't like the tangerine or the orange") were potentially SCOPE ambiguous, giving rise to a narrow-scope disjunction (=the lamb likes neither) and a wide-scope disjunction reading (=the lamb dislikes either one or the other). Each critical sentence (n=10) was placed either in a Disjunction Narrow Scope (DNS) or in a Disjunction Wide Scope (DWS) scenario, and was uttered with neutral IS or with focused negation.

A glm analysis of the results show that compared to the neutral baseline, focus on negation significantly affects participants' scope interpretation of negated disjunctive sentences, shifting the rate of acceptances in opposite directions in the two target scope reading conditions (DNS: p =.02, DWS: p<.001), and giving rise to an interaction between SCOPE and IS (p<.0001). This interaction is no different across the two age groups.

These results strongly suggest that preschool children already have the competence to access prosodically marked information structure in comprehension, and they can exploit it in an adult-like manner to guide logical scope interpretation. The failure of many previous experiments to reveal preschoolers' adult-like interpretation of focus-marking, then, may have to do not with children's receptive competence itself to compute information structure based on prosodic cues, but with their difficulties with other aspects of the particular comprehension tasks employed that go beyond basic IS interpretation [6], [7].

References

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